

CLAIMS

1. A blood collection device comprising a housing having an open rear end adapted to accommodate an evacuated blood collecting tube, and a front end, a needle holder in the front end, a needle which is attached to the needle holder and which is double ended and has a first end (outer end) that projects from the housing and a second end (inner end) that projects into the housing, the needle holder being releasably attached relative to the housing to enable the needle holder and the attached needle to be retracted.
2. The device as claimed in claim 1, further including a needle retraction device, the needle retraction device able to be pushed into the housing to release the needle holder from the housing and to retract the needle holder containing the attached needle into the needle retraction device.
3. The device as claimed in claim 2, wherein the needle holder contains at least one finger member that engages relative to the housing to retain the needle holder to the housing, the finger member being movable between a locking position where the finger member retains the needle holder to the housing, and a release position where the needle holder can be retracted into the housing.
4. The device as claimed in claim 3, wherein the needle holder comprises an assembly of at least two parts, the first part being an inner part and containing a passageway through which a puncture needle can extend to fit the puncture needle to the inner part, the second part comprising an outer nosepiece, the at least one finger member being attached relative to the nosepiece.
5. The device as claimed in claim 3, wherein the needle retraction device comprises an elongate hollow body which contains a vacuum and which has an open end, a piston which closes off the open end of the elongate hollow body and which is adapted for sliding movement within the hollow body, and which is releasably attached relative to the open end.
6. The device as claimed in claim 5, wherein the piston comprises at least one finger member which releasably attaches the piston relative to the one end of the hollow body, the finger member being movable between a locking position where the piston is attached to the hollow body, and a release position where the piston can be retracted into the hollow body under the influence of the vacuum.

7. The device as claimed in claim 6, wherein the at least one finger member on the piston extends forwardly from the piston, and the at least one finger member on the needle holder extends rearwardly such that as the needle retraction device is pushed against the rear of the needle holder, the at least one finger member on the piston releases the at least one finger member on the needle holder, and engages to the at least one finger member on the needle holder.

5

8. The device as claimed in claim 7, wherein the housing is provided with a ramp in a forward portion of the housing, the ramp contacting the at least one finger member on the piston when the needle retraction device is pushed against the rear of the needle holder, the at least one finger member riding along the ramp to release the at least one finger member from engagement with the hollow body to enable the piston containing the attached needle holder to be retracted into the hollow body under the influence of vacuum.

10

9. The device as claimed in claim 8, wherein the piston contains a pierceable material that is pierced by the inner end of the needle when the needle retraction device is pushed against a rear of the needle holder to seal the inner end of the needle.

15

10. The device as claimed in claim 8, wherein the piston contains a speed controller to control a speed of retraction of the piston into the hollow body, the speed controller comprising a sealing member extending from the piston and sealingly engaging with the hollow body to increase the frictional force of the piston on the hollow body.

20